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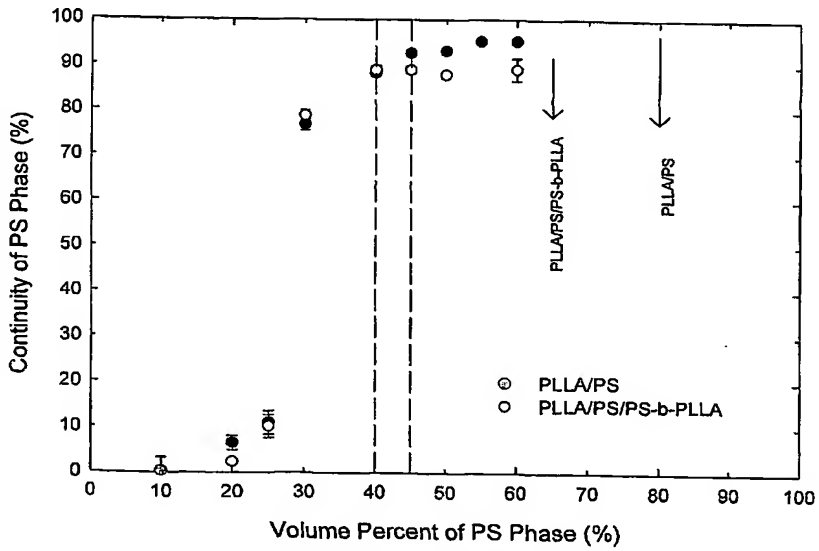
(54) Title: MICROPOROUS ARTICLES COMPRISING BIODEGRADABLE MEDICAL POLYMERS, METHOD OF PREPARATION THEREOF AND METHOD OF USE THEREOF



(57) Abstract: The present invention relates to a highly controlled method of preparation of a microporous biodegradable polymeric article. Firstly, at least one biodegradable polymer A, one polymer B, biodegradable or not, partially or totally immiscible with A, and a compatibilizer C for A and B are selected. Secondly, the selected polymers are melt-blended, thereby preparing a polymer blend, wherein said polymers A and B have an essentially continuous morphology. Thirdly, after cooling, polymer B and compatibilizer C are selectively extracted from the polymer blend by dissolution in a solvent that is a non-solvent of polymer A. The resulting polymeric article has an essentially continuous porosity with a void volume between 10 and 90% and a unimodal diameter distribution set to a predefined unimodal peak location. It can be used in tissue engineering, for controlled release applications or as an implantable medical device.

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GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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